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III.—*An Essay on accidental Association.* By Rev. JAMES WILLS.

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IN my examination into Mr. Stewart's theory of the association of Ideas, I was led to observe a more elementary application of the same principle ; and I then stated the conviction I felt, that this principle, if rightly stated, and applied with a strict regard to observation, would afford a more simple and sure basis for intellectual theory than any which has yet been applied.

In endeavouring to follow out this course of inquiry, I shall adhere, with the most undeviating strictness, to the simplest method of observation, and of direct inference from the facts of observation, and with an entire exclusion of the discussions or the conjectures of previous theories. There is, indeed, hardly an opinion that has any foundation, that may not be found somewhere among the speculations of theory. But, so far as my reading has gone, I would submit that, with very slight exception, such results, so far as they shall be found to coincide with the facts of observation, are rather incidental reaches of sagacity, than deductions from their theories. If this be allowed, it will be felt that I cannot, consistently with the method here proposed, encumber a very simple statement with the discussion of mere opinions ; and I beg to suggest to the Academy, that if the inferences which I shall here state, shall appear to be the plain results from the principle of investigation which I have adopted, and from the facts which I shall offer in its illustration, it is all that can in right reason be required. They who best know the vast complication of metaphysical theories, the general vagueness, inconclusiveness, and subtle perplexity with which they are conducted, and their nearly total disregard of observation, will most readily admit that I have no other course to follow.

There is one more consideration to be premised. The strict observation of intellectual phenomena must necessarily be internal ; it must be self-recollection

and self-scrutiny ; and, therefore, the facts to be stated are attended with the difficulty of being an appeal to the self-observation of others. The processes of thought are, it is true, generally the same in all ; but it does not follow from this, that all will at once discern the result of an observation more or less dependent on analysis and continued attention. In the simplest operations of the mind there is considerable intermixture and complication, and a fact will seldom be truly understood until it shall have been separated from others. When we look for the elementary facts of mind, they at first present no visible lines of demarcation, but, like the colours of the rainbow, are more or less blended over the entire range of the intellectual phenomena.

The earliest and most elementary fact that comes within the scope of actual observation, is simple apprehension, which is commensurate with, and inseparable from our consciousness. I have already described it as the sum of those perceptions, of whatever kind, which are at the same time present to the mind. And I may observe that, in this statement, it is a matter of entire indifference whether these are operations, or states of mind, or the mind itself. With such considerations we are wholly unconcerned : they are wholly beyond the reach of observation, and the compass of rational inference. The elementary fact on which I proceed is this, that at every instant of conscious thought, there is a certain sum of perceptions, or reflections, or both together, present, and together constituting one whole state of apprehension. Of this, some definite portion may be far more distinct than all the rest ; and the rest be in consequence proportionably vague, even to the very limit of obliteration. But still, within this limit, the most dim shade of perception enters into, and in some infinitesimal degree modifies the whole existing state. This state will thus be in some way modified by any sensation or emotion, or act of distinct attention, that may give prominence to any part of it ; so that the actual result is capable of the utmost variation, according to the person or the occasion. One person may be indistinctly gazing on the table and lights and crowd before us, and vaguely impressed by the murmur of voices ; another may, with these, be engaged in the thoughts of some other scene ; a third may be attending to the steps of a demonstration : of each the field of intellectual vision would be partly the same, partly different, while to each the whole state of existing apprehension would be far more considerably modified. To any portion of the entire scope here described there may be a special direc-

tion of the attention, and this special direction is strictly what is *recognized as* the idea present to the mind. This idea is evidently not commensurate with the entire state of apprehension, and much perplexity has arisen from not observing this fact. However deeply we may suppose the attention to be engaged by any thought, any considerable alteration of the surrounding phenomena would still be perceived; the most abstruse demonstration in this room would not prevent a listener, however absorbed, from noticing the sudden extinction of the lights. Some philosophers have imposed on themselves by extreme cases, but these are not inconsistent with the present statement, which admits of one portion of the whole apprehension growing more distinct, and the rest diminishing indefinitely.

This distinction is of some importance, as in the class of associations here mainly to be considered, the *whole* state of apprehension at a given moment is to be regarded. The operation generally known by the phrase "association of ideas," mainly regards distinct ideas combined by habit. On the contrary, that which I am now to consider mainly concerns those transient combinations of perception, which nearly every moment varies, and which may very appropriately be termed "accidental associations." If the former compose a main portion of our knowledge, the latter form the groundwork of our recollections, among the swift and fleeting changes of our days. The essential character out of which their most apparent use arises, is that to which I have mainly pointed your attention,—that they have always an *essential unity*, such, that each state of apprehension, however variously compounded, is a *single whole*, of which every component is, therefore, strictly apprehended (*so far as it is apprehended*), as a *part*. Such is the elementary basis from which all our intellectual operations commence. The elementary state of the mind is thus a state of association, which loosely and transiently embodies the phenomena by which our minds and senses are engaged, while reason and attention, by more slow degrees, embody, classify, and compare them: thus the tendency to apprehend by wholes, to revert to such wholes, and to frame thought into wholes, is to be traced as a common process pervading all the intellectual operations.

If we suppose that a person for the first time enters some locality of remarkable and peculiar features, and that, just as the peculiar character of the scene opens upon his attention, he meets two strangers, the whole so as to be nearly simultaneous in effect, we have an example containing the chief elements under

consideration. Let us consider the results. The whole idea, at the assumed instant, is a single whole apprehension ; a picture (as it were) composed of a remarkable scene with two persons in it. According to the hypothesis, all being strange, are free from the interference of other associations, and each proper to the combination in which it is found. Thus we have the main elements of a single state of apprehension, and, however subsequent attention may alter it, it is, so far as the assumption goes, *one idea*. Let us suppose it immediately removed ; the spectator may be supposed to pass on. Now, abstracting certain circumstances, such as the time, the excursion, the business, any of which would ordinarily lead to the recollection of such an incident, there will, according to the strict assumption, be no means whereby the supposed idea should again recur. Such a recurrence must be the result of some instrumentality, and, excepting by means of some relation of incident, or some inference of reason, theory has assigned none.

Now let it be supposed that one of the two strangers is met elsewhere. The first effect depends on a primary law of the mind which admits of no explanation, but will at once be understood by the term "recognition."\* He will be recognized strictly under the character in which he first appeared, as the constituent part of a whole state of apprehension. He must be recognized, not merely in his personal character, but as he was (according to hypothesis) seen,—a distinct feature of an impressive scene. The recognition must, therefore, bring with it the other parts of the same *one idea* ; the whole field of apprehension instantly emerges from the past. The person seen is part of an idea, in the same sense as if it were a picture, and the whole comes back, because the whole of an idea is (*primarily*) affected by every part ; it is by a separate process, or by succeeding impressions, they can be divided, and the combination dissolved.†

Let us now vary the assumption, and suppose the place only strange, and the person familiarly known, and frequently met in many places. The consequence of this new assumption would be, that the recurrence of the place would bring

\* If we assume this elementary faculty to arise from a tendency of the mind to resume a previous state, it will explain the fact, and agree with all the statements of this Essay. But it is an assumption purely empirical, and goes far beyond any result of legitimate inquiry.

† There is not a statement in this Essay respecting which some perplexing question may not be asked. I am not, however, engaged in explaining elementary facts, but in tracing laws of operation.

back the idea of the persons, but that of the persons may not bring back that of the place. To revert to the figure of speech already used, the place was a portion of *one* picture, the persons of *many*. In the same way, frequent returns to the same scene would lead to the interference of new and varied elements, so as to dissolve or much weaken the first impression ; it would, at the same time, and in the same degree, multiply the constituent parts of the apprehension of the place, and the avenues of thought by which it might be recalled. And this accumulation might increase indefinitely, from the first impression of a strange place to the familiar idea of home, to which all the thoughts have some tendency, and every project some point of termination.

Next let it be supposed that, after a time, some one resembling one of the persons, or some place resembling the place assumed, should chance to be met. In either case the same effects would be produced by similarity. But it is to be observed, that the process is in no way essentially varied ; for, so far as the similarity exists and operates, it is nothing more than the *virtual* identity of certain components. There must be some feature absolutely a portion of both ideas.

It is scarcely necessary to observe, that the simplicity of these cases cannot lessen their evidence ; and further, that it is the inevitable result of our analysis. When we reduce any mental process to its elementary shape, it must lead to some case of great simplicity. Such cases are not easily found in the real experience of life, for reasons which I shall notice presently. But, if any one desires *real* examples, they can easily be found in the recollections of early life. Before we go very far in our journey, the ordinary intercourse of life has ceased to present any thing new ; the components of every scene cross and combine in countless directions, and, by a refined process of interference, the waves of circumstance, like the secondary waves of light, neutralize and obliterate each other, save in certain practical directions. When we travel back to look for the actual recollections of our infancy, those, at least, suitable for illustration, will mostly bear the appearance of trifling ; so much, indeed, is this the case, that I should feel reluctant to offer any example of this description, were I not quite sure that they are common to most persons, and have the same character in all.

At a very early stage of infancy I was, for some years, in a place which I have never since visited, and living among persons with whom I have had no subsequent communication. Of all these persons there does not, or has not for

years, remained the slightest trace on my mind of distinct recollection, with, however, one very remarkable exception. When, by any chance, I am led to that time, one face rises to my recollection with all the distinctness of a thing of yesterday. Now, it might be supposed that this must have been the result of some childish affection—a nurse, or a parent, or some of the most close and tender ties of infancy. But the fact was otherwise. It was a farm servant, with whom I had no especial communication, and had only been in the habit of noticing as one of many persons. The man was, however, marked by a singular excrescence over the right eye, just in the place of the brow. Now it may be supposed at first that this mark may have been an object of special attention to a child. Such was not the case: I had been accustomed to see this man from the very first dawn of observation, and his deformity was no more a matter of curiosity than the commonest feature. Its effect was precisely that of affording an association *peculiar* to that face, and, therefore, not liable to be affected by the interference of common associations; and the consequence is this, that the whole face (in the expression of which it was included) is recalled by it with well-defined precision. I may here observe, that the features by which faces are distinguished differ but slightly in the turns and lines of direction, by the effects of which they are distinguished. Even those effects are composed of common elements of expression. Hence it is that, in general, the recollection of faces does not last quite as long as might at first be presumed. But in the case which I have stated, the association remained unbroken by any interference. The entire face returns; and, with the face, the voice, the figure, the dress, and some distinct localities all come together; for they were essentially combined with the one consistent, whole image of the mind. Here, it is to be observed, that no extraordinary degree of attention, or any determining cause, can be supposed. I was surrounded by phenomena of the utmost interest to the fresh curiosity of childhood,—the time when all is new, strange, and wonderful. A thousand things now forgotten, must needs have then communicated the deepest impressions. It was no affection for the person,—affection might well recall dearer objects. There was nothing but just the single characteristic mark, which satisfied the one condition, and had no other effect. This mark was the feature, not only of a face, but of a scene, and (if I may so say it) of a moment; and the connexion, not having been interrupted or confused by others, remained. The case is a strong one, and so far advantageous,

because it effects what is otherwise not easily done : it enables us to eliminate some of those causes which might otherwise be assumed. Every one who looks back to the earliest scenes of recollection may recall numerous moments and scenes connected with them, which must appear to start out from the surrounding obscurity of their period ; and a little reflection will shew that they are *generally* not the class of incidents which might seem to have the strongest claim to be remembered. It is true, that the impression of some one moment may be so strong as to remain unparalleled through life. But this is not the description of the greater part of our recollections : there may be an impression of greater power, but it is because it is peculiar that it is retained, and not because it is strong. Some peculiar aspect of daylight, marked even by a passing thought, will come back, when pains and pleasures, emotions and affections, have left no trace. Some note of a bird, some scent upon the air, will transport the thoughts over long, intervening years, to some scene or moment left far behind in our course.

This leads me to notice another strong cause of permanence in the recollections of early life. I mean the peculiar states of thought which are the result of ignorance. From this alone countless impressions are made which must never again be known, because they are the offspring of a passing moment's illusion ; they have no existence but in the breast. A line of horizon that bounded our prospect was a mystery ; every stranger came from some strange world ; the woods and the mountains were haunted by the things of imagination. I will take one class of recollections for illustration. Many must have felt how a verse of poetry, learned in early years, acquires a degree of expression quite peculiar. But it may not occur, how often it happens that the greater part of the charm consists in associations wholly supplied by the circumstances and the time, and having existence solely in his own imagination. The case is well worth especial notice : the tritest common-place has happened to touch the key-note of the fancy, and a whole atmosphere of bright illusions mingles with the instant : the language has acquired an expression of which no analysis can divest it. But how strange and complex will often be the recollection : it will bring back the moments, the actual scenes, the bound of the youthful breast, all in that same fictitious colouring. The scene that was present will be lighted with a fancied sunshine, and affected by states of feeling that cannot be effaced, because they cannot be felt again.

It would be, indeed, a deep error to ascribe these effects to any degree of



attention, or to any mere force of impression. A little reflection must remove this error. The force of an impression has also its effects, but these are such as to conceal the reality from careless observation. I think it may be admitted that an impression which satisfies the essential condition here enforced will be effective in proportion to its force. But it is, as a fact, quite obvious, that neither the degree of attention, or of pain or pleasure, or any other alleged help to memory, marks the degrees of recollection. Long courses of severe study are soon forgotten, violent terrors, painful operations, tedious intervals of disease, pass wholly; while trifles, too frivolous to mention, retain their indelible place in the mind, and can be recalled by "the chain wherewith we are darkly bound." The reason is not difficult. When deep attention is most required, it is evident that the elements of the idea thus to be attained must necessarily have been reached by a process in some degree excluding the simple and simultaneous unity of the apprehension. It is, as it were, forced to coalescence by parts. This is a result essential to a purpose distinct from memory; it induces a stronger and more permanent grasp of a present state of mind; but when this passes, there is no very apparent reason why it should be the easier to recall. The fact is otherwise; the problem is forgotten, and the half-noticed trifle is remembered. Attention has its proper functions, which have relation to the active pursuits of the present; the class of ideas to which it belongs is not that which it would be most generally useful to retain, facts used, pains endured, pleasures better forgotten. The circles of apprehension to which memory refers, faint and remote, present, like the constellations, a reference, to which the movement and position of all that concerns us can be referred.

It is indeed to be admitted, that incidents and situations involving deep and powerful emotions, not only are likely to contain rare and peculiar associations; but it is also true, that they must often be such as to involve a varied combination, and to give rise to numerous chains of association. On this I need not dwell.

I have as yet dwelt only upon those simpler modes of the process of memory, in which its essential condition and primary law might be easiest seen. It will be next necessary to call the attention of the Academy to operations more complex in their nature. Various processes of thought may mingle in the act of recollection, and, indeed, I would say that there is no mental operation of any importance, in which every faculty does not, in some way, become engaged. We often recollect

by inference, by computation, and by comparison ; yet, when the recollection contains any distinct idea, the same fundamental process may be traced.

The chief difficulties which affect the subject will be removed by shewing the extent to which the principle applies. The statements hitherto made, involved the condition of coincidence in time and place. This was, however, only for the sake of simplifying. Any kind of coincidence must have the same effect ; as intervals of time recede, they diminish to the apprehension, by a law very similar to that of space. Numerous incidents of former years having some common feature, and nearly the same distance, become confused together into a point of time. Of these, the most common instance is, where there is the community of place ; other common characters will mostly combine with such recollections, and the separation of time, with other diversifying marks, will be lost in the coincidence thus realised.

Again, there is in most minds some chain of habitual recollections ; facts associated with the identity of the person, and connected with states of mind seldom wholly lost. A lawyer, or a physician, carries with him a present sense of what he is. Most men are identified with the idea of home. From these main lines, countless ramifications of a fine and complex series run in every way into the past and future ; some ideas or occurrences take deep root, because they are dwelt upon, repeated, and variously interwoven with ourselves and our pursuits ; they have either seized upon some affection and mingled with the sources of emotion, or are connected with our pursuits. The mere attention, or the mere impression, or the relation of whatever kind, has been but a circumstance, and rather a cause of the process out of which the recollection arises, than of the recollection itself. In this discussion it will be useful to observe, and keep in view, the common state of mind out of which all its operations must be supposed to begin. Like all known agencies in nature, it must have some moving power to alter its immediate state. When any state of thought is strongly induced, it seems to be an inference that it must be in some measure slow to pass away : and if so, it may be perceived that the operation of habit must also in some degree have begun. If it is a state which frequently occurs, it is therefore evident, that it must acquire somewhat of the character of a fixed association. As objects fill a broader space in that compass of time which constitutes our present, and obtain more numerous links of connexion with the main course of our pursuits, it will be proportionably continued from day to day, and from year to year ; and thus is

formed the chainwork, by which our references to the past are actually made. As we go on from day to day, a large compass of the ideas with which we are mainly concerned accompanies us; our present is somewhat analogous to the ship's horizon, which still appears the same though the place is changed; and thus, too, are we possessed of a broad expanse, from which to search back, and if we observe to how large an extent the ideas which exert our attention to-day are but a continuation of yesterday, and that life itself is actually an external realization of this internal series of the thoughts, it will be easy to see, by what marks and points of departure our reckonings and computations of past events can be made. It is not merely by a pure associative process, that the more important portion of these recollections are made, and it will materially tend to clear and confirm this theory, if, before going further, we briefly dwell upon the ordinary process of active recollection.

Metaphysical writers have mostly adopted or admitted the division of memory into active and passive—remembrance and recollection. In each there is the same elementary process; each is the result of some suggestion of the present moment. In the passive, memory is awakened either by the present occurrence, or by the immediately prevalent tendency of the mind. In its vaguest reverie, the mind may be supposed to drift from state to state; and whatever be the aspect of thought, or however dim the apprehension, there must, while consciousness remains, be some gleam of thought; and there is no thought unconnected with suggestion. Such is the condition out of which the dream arises.

In the active process, various means are resorted to for the purpose of recollection, and, as I have already observed, all the faculties are employed. A date is fixed by computation; causes and effects are considered; to find what happened, what may or may not have happened is examined; the concurrences and combinations of the several lines of event are attentively traced; the means are various as the uses of reason. But these are not strictly the pure process of memory here to be considered. To make this process evident, it must be observed, that on any occasion whatever, before the will to recollect can be entertained, there must exist some present motive or reason for the inquiry; and it cannot but be at once perceived, that this motive itself offers or involves the first link of the train of suggestion. However remote, there must be some connexion between the idea sought and a purpose originating the search for it. Nor

is it necessary to suppose this connexion very direct or immediate : an investigation may consist of many lines of thought, and have many stages of investigation ; each of these must offer some continuity of premises and conclusions, which reason and judgment may regulate, combine, check, and compare.

When any one engaged in business has to recur to a past fact, if this should not be presented in the regular order of the proceeding, his first step is an effort to put his mind into some course of probable suggestion. These are innumerable, but the chief are, perhaps, date and locality. He will try to place himself in the precise circumstances under which he became cognizant of the fact,—the day, the place, the page of the book, the persons present, the acts on which they were occupied. In the course of such a process he will also apply his reason to each as it is called up, and thus obtain new directions or confirmations.

There is connected with this consideration a curious fact, which is universally experienced. I mean the power the mind possesses of re-perusing a past apprehension, so as not only to recover it in its original form, but, by altering the direction of the attention, to catch features which, while present, were not observed distinctly, though they formed a part of the whole idea. We are, for example, passed in the street by some friend, without the remotest sense of the fact, beyond the vague perception of a moving form ; a hundred yards are traversed, and suddenly the same figure returns on the thoughts, and is instantly recognized. This, I believe, sometimes occurs to most persons. Again, suppose a person to be asked if he met somebody in a crowded assembly ; his thoughts will most likely at once revert to the scene, and he will find himself analyzing it as if it were present.

An application of this principle may be found in the method of artificial memory, which, some years ago, was employed for the purpose of education. This application is so evident, that I will only remark that it exemplifies the principle in its purest form, and separated from all those adjuncts which usually accompany and modify all the main processes of the understanding : it, indeed, might be used for experiment. From this consideration may be inferred its hurtful character, as an instrument of instruction. The injury thus suggested was twofold ; it separated the exertion of the memory from all the concomitant operations ; it made knowledge purely dependent upon association ; and it also substituted one class of false associations, for all those which should be taught to arise out of the

relations of things. For the purpose of this present investigation, however, I would suggest, that the method thus abused would offer the surest mode of trial; and I would freely stake my proposition on its results; it was indeed, but a vicious isolation of that natural process which is of the most constant and uniform avail. Those persons who are much conversant with books, are aware how often the recollection of the date, the fact, or even the step of a chain of abstractions, is helped by the place of the page. The formulæ of science afford a similar assistance to the geometrician.

I am thus led to a very important consideration, which has a material bearing of a more general nature, but can only here be noticed as concerns the immediate subject. It is probable that it may be observed how uniformly I have taken my examples from the phenomena of vision.

I believe that the laws of the mind are simple and uniform, and that its main elementary processes are equally operative in every class of ideas; but it is not easy to bring the several classes into distinct evidence for the purpose of mere exemplification. The present purpose requires the help of those ideas which are most uniformly distinct, and of which the coherence can be most easily apprehended without confusion. It would demand more than an essay to fix the shadowy transitions and glancing associations of moral sentiment, to the satisfaction of any one reflecting person; and if this were done, it might not be so easy to satisfy another; and the difficulty very much consists in this,—the operations and processes of the mind are not, like our ideas, directly the object of attention, but elementary influences and transitions, of which the result alone is distinctly perceived. And, therefore, it is from our distinct ideas, and from those states of apprehension in which their coherency can at once be observed, that the most available cases can be derived. Of these, ideas of sensation are the most generally distinct; in the work of memory they are, therefore, most used, and those of sight most of all. Visible phenomena supply the entire ground of most men's thoughts; a fact which is to be perceived in the universal structure of language. There is scarcely a course in which the mind can be engaged, in which they will not afford the main support and guide to thought and action. A little reflection may, perhaps, even lead to a statement much less qualified, but scarcely less true. The whole structure of our knowledge, the substratum of all our moral affections, and the entire substance of most men's thoughts, is founded in, and

immediately tends to the external world of sense. We have few ideas unassociated with sound, and taste, and scent, and sight, and those of sight are a thousand-fold more than all the rest. To any of these, however, the application of the theory is the same. Mere abstractions, it is true, are not so easily combined; nor so easy to recollect; they mostly require some system of signs. There is, however, no reason why they should not be forced similarly to cohere under the influences of habit and peculiar genius.

Some illustration of this theory may be derived from a few special applications. The common effect of time in diminishing the coherence of our accidental associations may be briefly explained. I do not, of course, here mean to include the more decided lapse of memory which occurs in advanced years, and which is attributable to physical decay; but that diminution of the powers of retention, which is very generally noticed in persons of mature age, and which is implied when we hear the freshness of youthful memory spoken of. As years advance, and habits, places, pursuits, and other circumstances, pass through many changes, it is plain that the sum of most men's ideas, limited in amount, has passed into numerous combinations, with a variety almost unlimited. Consequently, after a time, there will remain few associations of the accidental class, of which all the components must not have become so variously involved as to have lost all exclusive appropriation; and thus there must follow a diminution in the coherence of our accidental associations. This, it ought to be observed, implies no real inconvenience or disadvantage; there is, on the contrary, a beautiful adaptation to the actual uses of the intellect, in a system of adjustments, by which at each period of life the memory is modified precisely to meet its real purposes. In early years our knowledge is mainly derived from the world of sensation; the senses themselves are first disciplined by habit, and those habitual intuitions are acquired by which we rightly see and hear. Observation next begins to note the similarities and dissimilarities of things, to classify and accumulate the facts which are to be the materials of reflection, and the foundation of knowledge: but as reason advances in this course, there is an increase of the efficiency of the *habitual* processes and associations, the expertness of inference, the discriminating power, the special attainments of profession and the formularies of thought and language which these involve. The more complex ends of reason are to be attained by more appropriate processes. Thus there is a compensation adequate to the change of circumstances

but, in point of reality, it is easy to ascertain that the change is not in the structure of the mind; which, if we could imagine it translated into a different system of external existence, would be found as young and fresh, in point of memory, as in its earliest years. This may be illustrated by the case of the traveller, whose observation is forcibly impressed by new combinations. Thus, then, while in ordinary life occurrences lose their distinctive character, and every thing becomes less memorable, because it is less peculiar, other and more advanced instrumentalities are substituted. From the same principle it arises, that there are recollections retained from childhood which survive all others; they contain elements which, having no existence in reality, cannot be mixed up in the patchwork of common life; they are associations *sui generis*, and contain a principle of permanence, which preserves them until all thoughts and feelings are passed away.

It has been frequently noticed by physiological writers, that in cases of mental derangement, somnambulism, and, I may add, dreaming, the peculiar manifestations of the mind appear subject to a very curious law. These manifestations are observed to pass away with the state from which they have their rise, so entirely as to leave no trace on the memory, and in such a manner as if the person affected had undergone a total change of identity. Now, if this be true, as I think it to be (with certain exceptions, unnecessary to notice here), it is easy to perceive with what curious accuracy it would follow as a result from the present statement; for a very slight consideration will make it appear, that most of the cases here referred to, are such as to exclude the very cause on which memory depends. First, so far as they are to be ascribed to causes purely physical, of which the effect is to induce some intellectual deviation from all the states connected with reality, or to operate illusively on the senses or the apprehension. In all such cases, however modified, it is evident that it is not likely, when the diseased state shall have passed, that any element of the illusion will remain. Cases can be indeed supposed, where this rule would not apply very clearly, but even if such be supposed, there is still reason to infer that the hallucination in its nature most nearly resembling common occurrence, would be forgotten, so far as it has *no actual compass of reality* to which it can be referred. Whatever may be abstractedly possible, in point of fact there will mostly remain no association.

But if we assume that, after an interval of sanity, the previous state of disease should return, it is equally apparent that the same combination of elements may arise, and that, in consequence, there will appear an unbroken continuity of exist-

ence between both paroxysms, in which the diseased subject may travel in memory from one to the other; the same field of view will be restored, and with it the same virtual perception of identity.

I forbear from the complicated consideration of the difficulties which seem to me to arise from the fact, that numerous cases of insanity plainly involve a combination of the sane together with the deranged operations of the mind. This involves nice questions as regards insanity, but does not affect my present statement. I only speak of such cases as come under the description on which I have reasoned.

The phenomena of dreaming may perhaps afford the most available cases for my purpose; they lie within the scope of general experience; they are also subject to various and considerable modifications, from the gradation of transitions which seem to occur in the act of falling asleep, and, it may be presumed, in waking. Most persons may, I presume, have experienced the curious transition which sometimes affects the thoughts in passing from one state to the other; how the reasonings wander into inconclusive and mysterious results, and the conceptions drop the form of waking reality, and take monstrous forms, or enter into successive changes of fantastic combination. Mr. Stewart supposes a successive change of the faculties, in the respective transitions between sleeping and waking. I do not think it necessary to adopt this theory, but I may observe that it is very agreeable to the actual phenomena, and may at least be useful as an illustrative assumption. I think it nearly evident, from the *observable* transitions I have mentioned, confirmed by Mr. Stewart's observation, that in sleep there are changes in which the mind makes approaches to the waking state, such as might be justly described by Mr. Stewart's language; and thus there is incidental to dreams a mixture of the effects of both states. Thus may arise cases most adapted to test the present statement, as it is evident how the actual associations of waking reality may offer a clue to memory in some cases, while in others there may occur no element of reality. Now, in the one class, a dream may be recalled by real incidents, in the other, it will recur only in a renewal of the same state: and such is the actual description of the facts, so far as I have been enabled to observe them. It will, I think, be easily ascertained, that when a dream is remembered, it is mostly by the intervention of some association common to the state of waking. I say mostly, because there is a different tendency of the mind, by which it retains its existing state during some interval of time: from this it is that the sleeper



sometimes awakens from some unintelligible state of mind, which he vainly tries to grasp, and which utterly passes from him even while he is trying to comprehend it. But the dream thus continued may be, and, from what I have said, is most likely to be largely combined with the elements of waking thought. In such case it will be distinctly remembered. Further, it may contain the actual conditions of present reality,—that is, the light, place, and combination of circumstances, may be such as to imply the present scene and time. When this occurs, there arises an impression of reality combined with the recollections. Hence, I have no doubt, some ghost stories may be explained.

Some persons may have experienced the recurrence of the same dream, with the distinct recollection of the same phenomena. This would be an instance of the peculiar community of ideas between two similar states, as already noticed.

There is another case still more illustrative, though less likely, when it occurs, to be distinctly observed. A dream, of which there has been no previous remembrance, is suddenly recalled to mind, even after several days, by the recurrence of some slight appearance or impression which it contained. The explanation is obvious. I do not dwell on these facts; where they have been observed the application needs no comment, where they have not it is too vague.

I have now stated the conclusions which, with the help of observation carefully pursued, I have drawn from the assumption of a law of consciousness which I consider to be easily ascertained, and to be capable of verification, both from reason and observation. That in the process of simple apprehension, there is an essential unity at every instant of time; that this unity is the general condition of distinct thought, so that, while it is a primary condition of simple apprehension, it is also the result of a habitual process; and that in every distinct idea, however various may be its components, there is a *virtual* or actual unity. These, I would submit, may be regarded as ascertained *data* in the theory of our intellectual state.

In stating this theory I have avoided all considerations of the speculative theories of authoritative writers. I have carefully kept free from definitions or from reasonings dependent on the sense of terms, which are definitions in disguise; but carefully selecting such facts as I thought likely to be coincident with common experience, I have endeavoured to present them in the ordinary idioms of the world.

The real difficulties attendant on this class of investigations, when thus at-

tempted, arise from the indistinctness and complication of our thoughts, and from our entire unconsciousness of the slow courses of habit. This is, indeed, a topic which demands separate consideration. It has been involved in the most strange misconception by some of the ablest writers, of whom I shall only now say, that they have too much disregarded the distinction between the succession of distinct ideas and the habitual processes of the mind. A difficulty must arise from the circumstance, that to think effectually the attention must be directed to the *idea*, and not to the operation. It is nearly impossible to seize and fix, for the purpose of analysis, the drifting currents of nearly evanescent thought, from which, in the most heedless moment, ideas seem to start spontaneously, because their origin is not traced, while we seem to think by chance, because we are not fully sensible of the law which governs the lightest movement of the mind. Methods of judging and of thinking far beyond the reach of mere reason to discover, the creation of habitual processes, become intuitive as they are formed; and though children can command them, philosophy has failed in the effort to explain them. Hence the infelicitous oversight, into which modern writers have fallen, of explaining these intuitions by referring them to unconscious arguments.

One remarkable result of this theory is the distinctness with which it brings into evidence the simple elementary process of thought called memory. It seems to divest it of the character of a faculty or original elementary power, and to refer it to the law of consciousness and the external constitution of things. When, however, we carefully analyze the process, as described and traced in this Essay, the elementary law appears to consist in the intuitive tendency to revert to the whole original apprehension, from the recurrence of any component part. This tendency, then, is memory. But a little careful consideration of the operations of the mind would shew, that the process called memory is but one mode of the operation of this tendency, in which the *idea of the past* is in some way included. The idea of a scene of yesterday differs from one of to-day, inasmuch as it was present at a particular hour, marked by its place in the chain of thought. The idea of a scene to come is, so far as our knowledge permits, conceived in all the wholeness of the present or the past. It, however, wants the main characters of *actual reality* and of self-consciousness which are the real distinctions. The times and localities of the past are fixed by variously crossing lines of reality, which, like circles of latitude and longitude, fix the point of past existence. These points are prominently marked by the strong and impressive component of the sense of personal

identity, which is the constant quantity in every transition. There are, for all of us, eras of life of which our present is itself but a result. From these our main reckonings are dated. But these are useless reflections.

If from a careful and patient analysis of the facts, which are to be had only from observation of the actual operations of the mind, we can succeed in tracing their apparent mode of working, I am fully convinced that intellectual philosophy can reasonably expect to go no further. The attempt to reason to known facts from unapparent processes, of which there is no evidence but that they might lead to such results, may very well be used as empirical, where empirical theory can be of any avail. In metaphysics it is fatal, and has, moreover, been applied with great rashness. The results to which, in some instances, it has led, have no foundation in fact or in reason. Mr. Stewart, and his followers, some of them as able as himself, have, by means of this mistaken philosophy, encumbered the theory of mind with a system of concealed machinery, more complex than the apparent. For the short, simple, and perceptible methods of habit and intuition, they have thought it necessary to assume the existence of impossible trains of reasoning, unknown to the reasoner or to any one else, founded on considerations not within his cognizance, and completely beyond the power of his conscious and ordinary faculties.

Of the method, of which the elementary principles have been laid before the Academy in this and the previous Essay, I may be permitted to say, that it is consistent with, and founded upon, the facts of observation; that it has the simplicity of principle, and the uniformity and fertility of application, which is one of the most remarkable distinctions of the laws of nature. I would also plead in its favour, that it displays much adaptation to the condition of man in this world, offering a system of processes which are founded on a common principle, and which increase and diminish, combine and vary, with a plain adaptation to the stages and concerns of life.

These remarks have the appearance of commendation, but this I must beg to disclaim. I offer them as *reasons*, on which I do not think necessary to dilate. On a subject, on which so many far more able writers have failed, it would be too presumptuous to expect further success than the addition of some facts in a right direction. My statement may be accepted as one of those tentative essays, which every one has the right, who has the will, to make, and for which this Academy is the appropriate place.